

Docket No. AUS920030554US1

**ABSTRACT OF THE DISCLOSURE**

**METHOD AND APPARATUS FOR IDENTIFYING  
FALSE CACHE LINE SHARING**

A method, apparatus, and computer instructions in a data processing system for processing instructions are provided. Instructions are received at a processor in the data processing system. If a selected indicator is associated with the instruction, counting of each event associated with the execution of the instruction is enabled. In some embodiments, the performance indicators may be utilized to obtain information regarding the nature of the cache hits and reloads of cache lines within the instruction or data cache. These embodiments may be used to determine whether processors of a multiprocessor system, such as a symmetric multiprocessor (SMP) system, are truly sharing a cache line or if there is false sharing of a cache line. This determination may then be used as a means for determining how to better store the instructions/data of the cache line to prevent false sharing of the cache line.